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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,206	11/27/2001	Christopher L. Hill	STL10005	9541

7590 10/31/2008  
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EXAMINER
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GLASS, ERICK DAVID

ART UNIT	PAPER NUMBER
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2837

MAIL DATE	DELIVERY MODE
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10/31/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/995,206	<b>Applicant(s)</b> HILL ET AL.	
	<b>Examiner</b> Erick Glass	<b>Art Unit</b> 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Appeal Brief filed 7/30/08.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 34-48 and 51-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 34-41, 45-48 and 51-56 is/are rejected.
- 7) ☒ Claim(s) 42-44 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

In view of the Appeal Brief filed on 7/30/08, PROSECUTION IS HEREBY REOPENED.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Walter Benson/  
Supervisory Patent Examiner, Art Unit 2837

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 34-41, 45-48, and 51-56 are rejected under 35 U.S.C. 102(b) as being anticipated by Blue et al. (4,574,227).

With respect to claim 34, Blue discloses an apparatus (fig. 1) comprising a circuit that monitors a cumulative amount of charge associated with a power supply (fig. 1, C2, R3, monitor

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the cumulative charge), wherein the power is removed from a load when the cumulative amount of charge is at least equal to a predetermined value (fig. 2C, shows a motor start peak; fig. 2E, the width of the pulse is determined by the time to charge the capacitor C2, at start the rush-in current high and pulse width is wider, taking more time to charge, the voltage across the sensing resistor is “predetermined value” when the capacitor is fully charged) from a profile of said values that decrease in magnitude during application of power to said load (fig. 2C “profile”, the current decreases after motor starts, the decrease in current is a function of motor speed; when the motor current decreases, the voltage across sensing resistor R3 also does and charging time of C2; compare pulses in 2E after rise in 2C).

With respect to claim 35, Blue disclose the load being a motor (fig. 1, 14).

With respect to claim 36, Blue disclose drivers (fig. 1, 22) that are disabled in response to the cumulative amount of charge being at least equal to the predetermined value (fig. 2E, off duty cycle of signal is wider once the capacitor is fully charged).

With respect to claims 37, Blue discloses wherein the predetermined value is based on the amount of charge that will cause a spike when the amount of charge is removed from the power supply (fig. 2C, 2E; at motor starting the rush-in current is high, thus, the voltage drop across R3 and C2 is high).

With respect to claim 38, Blue disclose the cumulative amount of charge being monitored by an integrative device (fig. 1, R3, C2).

With respect to claims 39 and 48, Blue disclose where in the load is an inductive load (fig. 1, 20).

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With respect to claim 40, Blue disclose wherein the circuit minimizes a spike on the power supply (column 2, lines 30-35).

With respect to claim 41, Blue discloses a system comprising: a motor (fig. 1, 14) coupleable to a power supply (fig. 1, 12); a sensor (fig. 1, C2, R3) coupleable to the motor; a control circuit (fig. 1, 24, 30, and output from 24) including an input and an output, the input being coupleable to the sensor, and wherein the control circuit provides an output signal on the output responsive to an amount of charge provided from the power supply that is at least equal to a predetermined threshold (fig. 2C, shows a motor start peak; fig. 2E, the width of the pulse is determined by the time to charge the capacitor C2, at start the rush-in current high and pulse width is wider, taking more time to charge, the voltage across the sensing resistor is “predetermined threshold” when the capacitor is fully charged), the predetermined threshold selected from a profile (fig. 2C "profile") of said thresholds that decrease in magnitude during application of power to said motor.

With respect to claims 45, Blue discloses motor drivers (fig. 1, 22) that are coupleable to the motor and the output, wherein the motor drivers are controlled responsive to the output signal (column 2, lines 35-55)

With respect to claims 46, Blue discloses motor drivers are disabled responsive to the amount of charge being at least equal to a predetermined threshold (fig. 2E, off duty cycle of signal is wider once the capacitor is fully charged “threshold”).

With respect to claim 47, Blue discloses a method comprising the steps of: monitoring a charge amount (fig. 1, C2, R3, monitor the cumulative charge) being removed from a power supply (fig. 1, 12), and decoupling the power supply from a load responsive to the

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charge amount being at least equal to a predetermined level selected from a profile (fig. 2C “profile”) of said levels that decrease in magnitude during application of power to said load.

With respect to claim 51, Blue disclose decoupling the power supply from the load for a predetermined time (fig. 2C, after spike in current, 2E off duty width is wider “predetermined time” once capacitor is fully charged).

With respect to claim 52, Blue discloses the amount of charge being removed from the power supply of the monitoring step is monitored by sensing an amount of current flowing through the load (fig. 2C, shows a motor start peak; at start the rush-in current high thus voltage drop across the current sensing R3 is high).

With respect to claim 53, Blue discloses the monitoring step further comprising accumulating charge in relation to the sensed amount of current flowing through the load (fig. 2C, shows a motor start peak; at start the rush-in current is high thus voltage drop across the current sensing R3 and C2 is high, and the capacitor take more time to charge as width of pulse are wider 2E).

With respect to claims 54, 55, and 56, Blue disclose controlling the motor during acceleration (Fig. 2, graphs before spike in 2C) of the motor to an operational velocity (fig. 2, 2<sup>nd</sup> half of graphs, after spike).

### ***Allowable Subject Matter***

Claims 42-44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Glass whose telephone number is (571)272-8395. The examiner can normally be reached on 9-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on 571-272-2227. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Erick Glass/  
Examiner, Art Unit 2837

/Walter Benson/  
Supervisory Patent Examiner, Art Unit 2837